

Adarsh Narayanan

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EDUCATION

Georgia Institute of Technology

B.S. in Aerospace Engineering, GPA: 3.87

Atlanta, GA

May 2028

EXPERIENCE

Structural Engineer

Aug. 2025 – Present

Yellow Jacket Space Program

Atlanta, GA

- Modeled primary and secondary structural components in SolidWorks, incorporating material limitations, interface requirements, and subsystem constraints to support accurate integration and fabrication readiness.
- Evaluated structural tradeoffs, potential failure modes, and manufacturability during interdisciplinary design reviews, identifying integration risks early and helping reduce redesign before fabrication.

Undergraduate Research Assistant

Aug. 2026 – Present

Structures and Multidisciplinary Design Optimization Group

Atlanta, GA

- Developed Python-based models in AMIGO to reproduce NASA/JPL CADRE engineering problems, including a 6-state spacecraft orbit model evaluated across 500+ time points.
- Validated numerical models against CADRE/RK4 reference solutions, achieving 2nd-order convergence and reducing trajectory error by around 94% through time-grid refinement.

Undergraduate Research Assistant

Summer 2026

Control, Dynamics and Estimation Laboratory

Buffalo, NY

- Implemented Golden Segment optimization algorithms in MATLAB and validated them across 12 multidimensional test problems, improving convergence time by 18% compared with the initial implementation.
- Designed, tested, and documented Arduino-based embedded systems using C++, troubleshooting hardware and software issues through structured testing, workflow optimization, and iterative problem solving.

Undergraduate Research Assistant

Aug. 2025 – May 2026

Ben T. Zimmer Combustion Laboratory

Atlanta, GA

- Simulated ammonia combustion conditions in ANSYS Chemkin, extracting and processing output data in Excel and MATLAB to analyze flame stability, emissions, and energy-efficiency trends.
- Created MATLAB visualizations from simulation and experimental datasets to compare behavior across operating conditions, while iterative testing and data-driven adjustments improved experimental throughput by 10%.

PROJECTS

AI-Powered Jet Engine Predictive Maintenance Project

Summer 2026

NASA C-MAPSS Turbofan Degradation Dataset Independent Project

Buffalo, NY

- Built a Python analytics pipeline to process over 20,000 NASA C-MAPSS sensor records, automate data cleaning and feature engineering, and reduce data-preparation time by an estimated 70%.
- Developed and compared predictive-maintenance models for jet-engine degradation, reducing RMSE by an estimated 12% over the baseline and creating visual reports to communicate model performance.

INTERNSHIPS

Digital Innovation Intern

Jul. 2026 – Present

Sodexo

Buffalo, NY

- Completed content, product, and pricing updates across 100 webpages and listings while executing 30+ QA/UAT test cases, reducing inaccurate customer-facing information and post-release defects by 15%.
- Collaborated with cross-functional teams on digital projects, contributing to feature development, quality assurance testing, and troubleshooting to improve platform functionality and user experience.

SKILLS

Languages: MATLAB, Python, JavaScript

Software: SolidWorks

Key Courses: Intro to Engr. Graphics, Physics I & II, Differential Equations, MATLAB, Thermodynamics & Fluids